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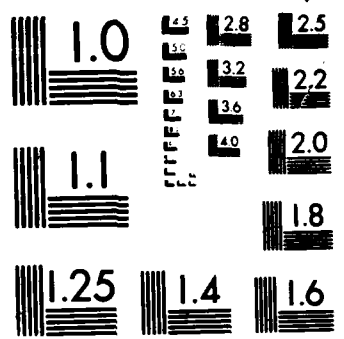
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ASL PERFORMANCE MEASURES AND STANDARDS

BY

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ASL PERFORMANCE MEASURES AND STANDARDS

An Individual Essay

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## ABSTRACT

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ASL Performance Measures and Standards are Management guides established by Department of Army policies to optimize the management of the supply system below the wholesale level. This paper is a discussion of the adequacy of those ASL performance measures and an assessment of conflicting policies that either preclude or make it difficult to achieve the desired standard.

result, performance measures such as demand accommodation, ASL size, and ASL turbulence are of questionable value in the current environment.

There are a number of factors that impact on supply performance measurements. One prime objective of having an inventory of repair parts on hand at the DSU level is to maintain a high operational availability of supported equipment by reducing the probability that the customer must wait for delivery of a needed repair part from a higher source of supply. Maintenance actions tend to drive operational availability at least as much as supply actions. The two are closely related, however, maintenance very rarely surfaces as the recordable reason an item of equipment is non mission capable. The supply factor is the element most frequently credited with producing the non mission capable rating. The most demanding managing task is to determine which lines are to be on the ASL. Current regulations and policies give the supply manager some latitude to vary the size of the ASL. His goal is to insure that the part needed is the one carried on the ASL and there is stock on hand for each ASL item. He must accomplish this within the framework of current fiscal and deployable constraints. One factor in overall readiness is deployability, so that the ASL must be reasonably mobile on the DSU's organic transportation assets. The other aspect of readiness is combat capability. There

## ASL Performance Measures and Standards

This paper is an discussion of the adequacy of current supply performance measures and standards below the wholesale level given existing fiscal and doctrinal constraints. It's primary focus is on repair parts. Over the past decade there has been a shift from demand supported ASLs to decision based ASLs caused by fiscal and doctrinal policies, and the Force Modernization Program. This shift should trigger a review of the usefulness of many current supply performance measures and standards for two major reasons - either they are no longer controlled by the Support Supply Activity (SSA) or recent experience shows that the standards can not be achieved. Stockage constraints, the influx of Force Modernization items and related repair parts associated with displacement of old repair parts, policy to reduce ASL size and increase ASL mobility, have contributed to ASL turbulence. SSA's are required to maintain a high demand accommodation but have been effectively prevented from meeting this objective by other conflicting policies. As a



are many lines which must be stocked, even though there is little or no peacetime demand. Force modernization items increases the size of the ASL and these items are also required to be stocked for two years until demand history is accumulated. Demand supported items must compete for space on the ASL with these items and meet stockage policies.

A big competitor of the ASL for funds is direct exchange. The management of direct exchange (DX) is critical and is a source of high dollar value repairable subassemblies for end items. Maintenance delays are inherent in supply management of DX. It's a characteristic of DX items that they are all essential items, and lack of one to exchange with a customer means a piece of equipment is deadlined.

All of these factors that affect operational availability and thus current readiness measurements are interrelated from a supply measurement stand point. This interrelationship means that taking one kind of action usually precludes taking another, ie, adding ASL lines to gain improved demand accommodation works against gaining and maintaining high ASL mobility. Receipt processing is probably the only area where actions can be taken to improve supply operations independently without affecting other areas of measurement. Receipt processing will be addressed later in the paper. What is needed by the SSA manager is one or

more specific supply performance indicators which would be predictive of equipment operational availability, so that if he concentrated attention on improvement of this indicator, better operational availability would result.

Now lets focus on supply performance measures as they relate to ASL accommodation, turbulence and size. Stockage breadth policy dictates what will be on the ASL. It is usually expressed as the number of demands as item must have received in a control period for it to be added to the ASL and the number of demands required for an item to be retained.

Demand accommodation is defined as the percentage of total valid demands that are for items which are contained in the ASL. Valid demands are those remaining after requisitions with editing errors are deleted. The intent of this measure is to determine the adequacy of the ASL range to accommodate the customer demands. In an unconstrained environment, accommodation measures the degree of convergence of demand. By this is meant the degree that demands are limited to a few items demanded a great many times versus many items demanded just once or twice each. It is highly dependent on the add-retain criteria. Per Sect III AR 710-2 demand accommodation is no longer used as a performance standard. It was meant to be a performance measure of a

fully demand supported ASL. With significant amounts of prescribed stockage, it is no longer useful to DSU manager.

ASL turbulence is another performance indicator associated with add-retain stockage breadth policy. It is a measure of the volume of additions and deletions to the ASL during the control period. The intent of this measure is to indicate the level of management activity in a DSU. Each addition or deletion to the ASL requires numerous clerical activities. The greater the turbulence, the greater the workload in the warehouse section. The effects of high turbulence are increased likelihood of location and inventory accuracy errors, generation of tremendous amounts of excess as items go from ASL to NSL stockage and planning for deployment and sustainability is hampered because uploading of the ASL onto DSU vehicles and trailer is disrupted by continuous changes in load plans. High ASL turbulence is tremendously costly to efficient and effective supply operation. Its control is done primarily through selection of a proper add-retain criteria. ASL turbulence is important as a measure because of the effects on the smooth functioning of the DSU and on inventory accuracy. Force modernization lines should not be included in turbulence calculations nor should they be counted as ASL lines, because they tend to give a smoothing effect that's artificial. They should be maintained on the ASL, but not used in ASL calculations.

ASL size is the number of lines of items which are authorized to be maintained in inventory. The original intent of this measure was to determine the scope of management complexity facing the supply manager. Selection of ASL size to a large degree determine demand accommodation, turbulence and mobility. Conversely, selection of specific add-retain criteria will largely determine ASL size. ASL size is not useful as a performance measure in a demand supported system because the size will be determined by the add-retain stockage policy. It has been suggested that ASL size is an indicator of ASL mobility. There is a correlation between size, weight and cube and the operating level factors but, no direct correlations between size and mobility. ASL size is determined by stockage breadth policy or the add-retain criteria to provide a certain level of demand accommodation and ASL size will grow to a level that supports that degree of accommodation. You can not have a small ASL and high demand accommodation in an unconstrained request environment. To artificially constrain ASL size will automatically reduce demand accommodation. As I mention earlier, force modernization lines should not be counted as ASL lines in an ASL size constrained environment, simply because these lines must be maintained on the ASL for a two year period before adjustment can be made. Manage them as ASL lines, but don't include in any ASL calculations for the two year demand

history period.

The factors discussed up to this point have dealt primarily with stockage breadth. The following factors will tend to deal more with stockage depth.

Demand satisfaction is a measure of the ASL depth. The amount of stockage in the inventory to fill requests for items on the ASL. The intent of this measure is to determine the degree to which stockage depth supports demand. High demand satisfaction result if a high percentage of ASL lines have stock on hand. Stockage levels include a safety level, and order and ship time level and an operating level which the manager has considerable power to control and optimize satisfaction by aggressive management. The importance of this measure to the availability of adequate stocks to support both readiness and sustainability can not be over emphasized and it should retain its high priority status.

Direct exchange satisfaction is the same as demand satisfaction except it applies only to the lines maintained in the direct exchange activities. The intent of this measure is to monitor the overall responsiveness of the direct exchange operation to customer demands.

ASL zero balances with dues out is a measure of the

number of lines on the ASL which are at zero balance. The intent of this measure is to assess the critically of the stock on hand position. Used in conjunction with demand satisfaction, this measure checks the responsiveness of the wholesale supply system and the adequacy of the current stockage policy to fill requests. Zero balances with dues out contribute directly to deadlined equipment when stockage is limited to essential lines. Inadequate safety level is the principal contributing cause of zero balances.

Quick Supply Store (QSS) and Self-Service Supply Center (SSSC) measures are identical to ASL zero balances with dues out except that they include only lines stocked at each particular activity and all zero balance lines are counted, not just those with dues out. This is a valid measure, however, deadlined repair parts should not be placed in this category.

ASL mobility index deals with both stockage breadth and stockage depth. It is a measure of the percentage of the essential ASL lines that can be moved by a DSU in a single trip with organizations' vehicles. The intent of this objective is to force supply managers to include a readiness criterion in selection of ASL lines for stockage. The objective per table 1-4, AR 710-2 is 100 percent mobility for forwards with a management level of 90 percent and 75 percent

for rear DSU's with a management level of 50 percent. 1 ASL mobility, as defined, is primarily a measure of readiness, not of sustainability. Sustainability is measured by three factor: demand accommodation, demand satisfaction and mobility. The three measures must be optimized in order to achieve sustainability.

Requisition and receipt processing times are measures of the efficiency of the DSU to speed requests to higher supply activities and to receive materiel from higher supply sources. The intent of these measures is to evaluate the efficiency of the DSU to internally control the flow of documents and materiel in order to provide rapid and accurate response to the customer. Table 1-4. AR 710-2 set an objective of 2 days for request processing with a management level of 4 days and 3 days receipt processing with a management level of 5 days. 2 Processing time is an extremely important performance measure because it forms a significant portion of the total order and ship time and it can be controlled by the manager. Receipt processing depends on the average time between daily cycles. An additional factor required is the need to physically process the supplies. The Direct Support System (DSS) allows bulk shipments of parts to be shopped from depot direct to DSU's. Materiel receipt cards that accompany the shipment need only be placed in the daily cycle to post the stock receipt.

Physically processing a bulk container, matching receipt documents to items, converting the shipping document to and input record for the daily cycle, can consume a great deal of time. Currently, all DSS shipments are delivered to the main DSU. This means that all shipment must be processed by the main DSU to include those parts designated for forward DSU's. DSS shipment should be packaged by CONUS depot into pallets by forward DSU groupings or one pallet divided into four segments to match the forwards and the main DSU to avoid double handling. This would significantly by reduce receipt processing time and order and ship time. Request and receipt processing times represent a significant portion of order and ship time. They are measures which are within the local supply managers perview to control without influence from higher supply sources or policy.

Inventory accuracy is a measure of the degree to which physical inventory agrees with stock record balances. The intent of this measure is to provide a check on physically inventory accountability. Table 1-4, AR 710-2 list an objective of 95 percent with a management level of 85 percent. <sup>3</sup> Inventory accuracy represents the fraction of ASL lines having no substantial different between the dollar value of inventory and the dollar value of stock record balance. A substantial difference is an overage or shortage with an extended line value greater than \$50. <sup>4</sup> The measure



is a broad indicator of record keeping and warehouse accuracy in terms of lines of the ASL but does not provide an indicator of dollar magnitude of any problem. Inventory accuracy is an important indicator of both stock management and warehouse management effectiveness. The present objective is valid and can be achieved.

Location accuracy is a measure of the degree to which locations of ASL lines listed on the stock records agree with the physical location actually in the storage area. The intent of this measure is to provide a measure of the effectiveness of warehouse operations in establishing and accurately recording locations of ASL lines onto stock records. Table 1-4, AR 710-2 list an objective of 98 percent and a management level of 95 percent. Although the objective can be met, a more cost effective way of achieving it is through more frequent and accurate line inventories. This measure should be eliminated.

Materiel release denial rate is a measure of inventory and location accuracy. It measures the number of materiel release orders that could not be filled because stock was not onhand as indicated in stock records. Materiel release denials occur because the stock record file shows a balance onhand, but warehouse personnel are unable to locate any stock to issue. Table 1-4, AR 710-2 list the objective as

one percent with a management level of zero to three percent.

• This is a critical measure and should remain at the current objective.

The reduction of warehouseman (76P) in the heavy division main support battalion is an issue that directly impact receipt processing. The improvement of DSS shipment by distributing supplies directly to Forward Support Battalions avoids double handling of supplies thereby improving receipt processing.

For the past several years DSU supply policy has been to emphasize mobility and deployability of ASLs while at the same time reduce inventory costs. The methods chosen to achieve this end have to a unacceptable degree reduced both current readiness and the potential for sustainability.

Over time there have been a number of Department of Army policies that conflicted with ASL performance measures and standards. The ones that had or have the greatest impact are Demand Accommodation versus Essentiality coding, Demand Accommodation versus Stockage Criteria and ASL Mobility versus Transport capability. The demand Accommodation issues have been resolved. The ASL mobility problem may yet exist. The idea of reducing the size of the ASL to improve the ASL mobility index does little, if anything, for readiness and

sustainability. Increase the transport fleet and the problem will be solved.

# ENDNOTES

1. US Department of the Army, Army Regulation 710-2, P.10
2. Ibid
3. Ibid
4. Ibid
5. Ibid
6. Ibid

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